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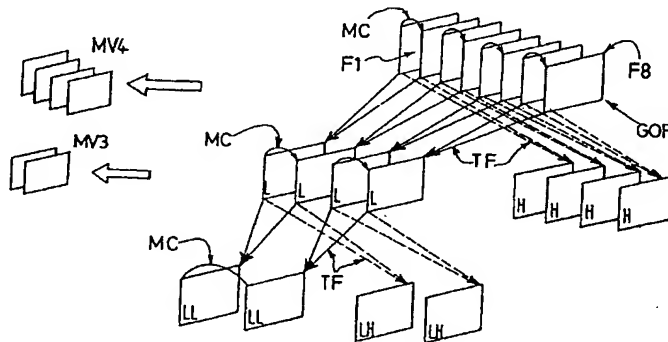
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(54) Title: VIDEO ENCODING METHOD AND CORRESPONDING COMPUTER PROGRAMME



(57) **Abstract:** The invention relates to a method of encoding a sequence of frames, composed of picture elements (pixels), by means of a three-dimensional (3D) subband decomposition involving a filtering step applied, in the sequence considered as a 3D volume, to the spatial-temporal data which correspond in said sequence to each one of successive groups of frames (GOFs), and to implementations of said method. The GOFs are themselves subdivided into successive pairs of frames (POFs) including a so-called previous frame and a so-called current frame, and the decomposition is applied to said GOFs together with motion estimation and compensation steps performed in each GOF on said POFs and on corresponding pairs of low-frequency temporal subbands (POSSs) obtained at each temporal decomposition level. The process of motion compensated temporal filtering leading in the previous frames of said motion estimation steps, that are filtered along a motion trajectory corresponding to motion vectors defined by means of said motion estimation steps, and on the other hand to a residual number of so-called unconnected pixels, that are not filtered at all, each motion estimation step comprises a motion search provided for returning a motion vector that minimizes a cost function depending at least on a distortion criterion, said criterion taking into account the unconnected pixels phenomenon for the minimizing operation, itself based on specific rules allowing to obtain, either by a non-recursive or a recursive implementation, the optimal set of motion vectors.

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